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10/582,200

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EXAMINER

REGO, DOMINIC E

ART UNIT

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2618

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/582,200	Applicant(s) SITTLER ET AL.	
	Examiner DOMINIC E. REGO	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9,11-15 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-9,11-15 and 17-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is responsive to the application filed on January 21, 2010.
Claims 1, 3-9, 11-15, and 17-19 are pending and presented for prosecution.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson (US 2005/0052341) in view of Ella et al. (US Patent #6,751,470), and further in view of King et al. (US Patent #6,415,158).

Regarding claim 1, Henriksson teaches a radiocommunications device capable of operating on at least two transmission frequency bands and at least two reception frequency bands of a first predetermined standard, the device comprising: first means for implementing communications according to a first predetermined standard, and second means for implementing communications according to a second predetermined standard (Paragraph 0041) except for at least partially using at least one of said frequency bands, wherein the second predetermined standard comprises a walkie-talkie

Art Unit: 2618

standard and the second communications implementation means use the same frequency band for transmission and reception.

However, in related art, Ella teaches at least partially using at least one of said frequency bands (*Col 1, lines 12-65, especially lines 41-55, Ella teaches in a mobile phone that is capable of operating in both PCS1900 and DCS 1800 bands, the PCS1900 Tx frequencies (1850-1910 MHz) and the DCS1800 Rx frequencies (1805-1880 MHz) overlap in the frequency range of 1850-1880 MHz. In the front-end design such as that shown in FIG. 1, the isolation between PCS 1900 Tx and DCS 1800 Rx components is only about 20 to 30 dB*). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Ella to Henriksson for improving the isolation in an antenna system to add diodes or transistors to the Rx lines of the problematic Rx paths when the transmission frequency band and the receiving band overlap due to cross-talk (See Ella, Col 2, lines 18-40).

The combination of Henriksson and Ella fail to teach wherein the second predetermined standard comprises a walkie-talkie standard and the second communications implementation means use the same frequency band for transmission and reception.

However, in related art, King (US 6,415,158) (hereinafter simply referred to as *158) teaches wherein the second predetermined standard comprises a walkie-talkie standard and the second communications implementation means use the same frequency band for transmission and reception (*Col 4, lines 29-45: King (*158) teaches illustrated in FIG. 4, the mobile further includes a push-to-talk (PTT) button 28 which the*

Art Unit: 2618

user presses to transmit during the W-T mode. In contrast to frequency division duplexing which allows a user to speak and listen simultaneously, two-way radio communication typically transmits and receives at the same frequency, thus restricting the user to either speaking or listening at a give time (i.e., time-division duplexing). Therefore, in a manner discussed below, the dual mode mobile either transmits or receives during W-T mode depending on whether the user is pressing the PTT button 28). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of King (*158) to Henriksson and Ella so that user can speak and listen simultaneously, thus restricting the user to either speaking or listening at the same time (King (*158), Col 4, lines 35-45).

Regarding claim 3, the combination of Henriksson, Ella, and King (*158) teach all the claimed elements in claim 1. In addition, king (*158) teaches the radiocommunications device, wherein said same frequency band used for transmission and reception is chosen so as to include a portion in which said device is capable of transmitting according to said first standard and a portion in which it is capable of receiving according to said first standard (*See King(*158), Col 4, lines 29-45*).

Regarding claim 11, the combination of Henriksson, Ella, and King (*158) teach all the claimed elements in claim 1. In addition, Henriksson teaches the radiocommunications device, wherein said transmission frequency bands are 825-849 MHz and 880-915 MHz, and said reception frequency bands are 869- 894 MHz and 925-960 MHz (Paragraph 0041).

Regarding claim 12, the combination of Henriksson, Ella, and King (*158) teach all the claimed elements in claim 11. In addition, Henriksson teaches the radiocommunications device, wherein the frequency band used by said second communications implementation means is 868-870 MHz, for transmission and reception (Paragraph 0041).

Regarding claim 13, the combination of Henriksson, Ella, and King (*158) teach all the claimed elements in claim 11. In addition, Henriksson teaches the radiocommunications device, wherein the frequency band used by said second communications implementation means is 9902-928 MHz, for transmission and reception (Paragraph 0041).

Regarding claim 14, the combination of Henriksson, Ella, and King (*158) teach all the claimed elements in claim 1. In addition, Henriksson teaches the radiocommunications device, wherein it includes user-system interface elements specific to the implementation of communications according to said second standard (This is inherent in dual mode or multimode mobile terminal. Also see Henriksson, Paragraph 0041).

Regarding claim 15, Henriksson teaches a radiocommunications device comprising:

at least two transmission frequency bands and at least two reception frequency bands of a first predetermined standard; a single antenna; and a shared digital processor, which implements communications through the single antenna according to a first predetermined standard and implements communications through the single

Art Unit: 2618

antenna according to a second predetermined standard (Paragraphs 0039-0041) except for at least partially using at least one of said frequency bands, wherein the second predetermined standard comprises a walkie-talkie standard and the shared digital processor uses the same frequency band for transmission and reception to implement communications according to the second predetermined standard, and wherein the same frequency band is chosen so as to include a portion in which the device is capable of transmitting according to the first standard and a portion in which the device is capable of receiving according to the first standard.

However, in related art, Ella teaches at least partially using at least one of said frequency bands (*Col 1, lines 12-65, especially lines 41-55, Ella teaches in a mobile phone that is capable of operating in both PCS1900 and DCS 1800 bands, the PCS1900 Tx frequencies (1850-1910 MHz) and the DCS1800 Rx frequencies (1805-1880 MHz) overlap in the frequency range of 1850-1880 MHz. In the front-end design such as that shown in FIG. 1, the isolation between PCS 1900 Tx and DCS 1800 Rx components is only about 20 to 30 dB*). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Ella to Henriksson for improving the isolation in an antenna system to add diodes or transistors to the Rx lines of the problematic Rx paths when the transmission frequency band and the receiving band overlap due to cross-talk (See Ella, Col 2, lines 18-40).

The combination of Henriksson and Ella fail to teach wherein the second predetermined standard comprises a walkie-talkie standard and the shared digital processor uses the same frequency band for transmission and reception to implement

Art Unit: 2618

communications according to the second predetermined standard, and wherein the same frequency band is chosen so as to include a portion in which the device is capable of transmitting according to the first standard and a portion in which the device is capable of receiving according to the first standard.

However, in related art, King (*158) teaches wherein the second predetermined standard comprises a walkie-talkie standard and the shared digital processor uses the same frequency band for transmission and reception to implement communications according to the second predetermined standard, and wherein the same frequency band is chosen so as to include a portion in which the device is capable of transmitting according to the first standard and a portion in which the device is capable of receiving according to the first standard (*Col 4, lines 29-45: King (*158) teaches illustrated in FIG. 4, the mobile further includes a push-to-talk (PTT) button 28 which the user presses to transmit during the W-T mode. In contrast to frequency division duplexing which allows a user to speak and listen simultaneously, two-way radio communication typically transmits and receives at the same frequency, thus restricting the user to either speaking or listening at a give time (i.e., time-division duplexing). Therefore, in a manner discussed below, the dual mode mobile either transmits or receives during W-T mode depending on whether the user is pressing the PTT button 28*). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of King to Henriksson and Ella so that user can speak and listen simultaneously, Thus restricting the user to either speaking or listening at the same time (King (*158), Col 4, lines 35-45).

4. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson (US 2005/0052341) in view of Ella et al. (US Patent #6,751,470) in view of King et al. (US Patent #6,415,158) and further in view of King et al. (EP 1026908).

Regarding claim 4, the combination of Henriksson, Ella, and King (US 6,415,158) fail to teach the radio communications device wherein said first and second communications implementation means comprise at least some processing means.

However, in related art, King (EP 1026908) teaches the radio communications device wherein said first and second communications implementation means comprise at least some processing means (See King, EP 1026908, Para. 0011-0016).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of King (EP 1026908) to Henriksson, Ella, and King (US 6,415,158), in order to process the encoded audio bit stream (See King, EP 1026908, Para. 0011).

Regarding claim 5, the combination of Henriksson, Ella, King (US 6,415,158) and King (EP 1026908) teach all the claimed elements in claim 4. In addition, King (EP 1026908) teaches the radiocommunications device, wherein said shared processing means belong to the group including: digital processing means; filtering means; amplification means; and modulation and/or demodulation means (Paragraphs 0011-0016).

Art Unit: 2618

5. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson (US 2005/0052341) in view of Ella et al. (US Patent #6,751,470) in view of King et al. (US Patent #6,415,158) in view of King et al. (EP 1026908) and further in view of Connor (US 2004/0203353).

Regarding claim 6, the combination of Henriksson, Ella, King (US 6,415,158) and King (EP 1026908) fail to teach the radiocommunications device, wherein, said shared processing means include digital processing means and storage means, containing data for command and control of said digital processing means, according to said first standard and according to said second standard.

However, in related art, Connor teaches the radiocommunications device, wherein, said shared processing means include digital processing means and storage means, containing data for command and control of said digital processing means, according to said first standard and according to said second standard (Paragraph 0013). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Connor to Henriksson, Ella, King (US 6,415,158) and King (EP 1026908), in order to process the encoded audio bit stream.

Regarding claim 7, the combination of Henriksson, Ella, King (US 6,415,158), King (EP 1026908), and Connor teach all the claimed element in claim 6. In addition, Connor teach the radiocommunications device, wherein said command and control data for said second standard of implement digital communications (Paragraph 0013).

Regarding claim 8, the combination of Henriksson, Ella, King (US 6,415,158), King (EP 1026908), and Connor teach all the claimed element in claim 6. In addition, Connor teach the radiocommunications device, wherein said command and control data for said second standard of simulate analog communications (Paragraph 0013).

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson (US 2005/0052341) in view of Ella et al. (US Patent #6,751,470) in view of King (US 6,415,158) and further in view of Segal (US Patent #7,031,280).

Regarding claim 9, the combination of Henriksson, Ella, and King (US 6,415,158) fail to teach the radiocommunications device, wherein said first predetermined standard belongs to the group including GSM, GPRS and UMTS.

However, in related art, Segal also teaches the radiocommunications device, wherein said first predetermined standard belongs to the group including GSM, GPRS and UMTS (Col 2, line 48-Col 3, line 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Segal to Henriksson, Ella, and King (US 6,415,158) in order to provide or facilitate voice communication services or data or messaging services over cellular wide area networks.

Art Unit: 2618

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson (US 2005/0052341) in view of Ella et al. (US Patent #6,751,470) in view of King (US 6,415,158) and further in view of Garcia (US 2005/0146432).

Regarding claim 12, the combination of Henriksson, Ella, and King (US 6,415,158) fail to teach the radiocommunications device, wherein the frequency band used by said second communications implementation means is 868-870 MHz, for transmission and reception (Paragraph 0041).

However, in related art, Garcia also teaches the radiocommunications device, wherein the frequency band used by said second communications implementation means is 868-870 MHz, for transmission and reception (Paragraph 0018). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Garcia to Henriksson, Ella, and King (US 6,415,158), in order to communicate with other device by using push-to-talk or walkie-talkie or Bluetooth technology with a certain frequency band.

8. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henriksson (US 2005/0052341) in view of Ella et al. (US Patent #6,751,470) in view of King (US 6,415,158) and in view of Connor (US 2004/0203353).

Regarding claim 17, the combination of Henriksson, Ella, and King (US 6,415,158) fail to teach the radiocommunications device and further comprising: a

Art Unit: 2618

storage device containing data for command and control data of the digital processor, according to the first standard and according to the second standard.

However, in related art, Connor teaches the radiocommunications device and further comprising: a storage device containing data for command and control data of the digital processor, according to the first standard and according to the second standard (Paragraph 0013). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Connor to Henriksson, Ella, and King (US 6,415,158), in order to process the encoded audio bit stream.

Regarding claim 18, the combination of Henriksson, Ella, King (US 6,415,158), and Connor teach all the claimed element in claim 17. In addition, Connor teaches the radiocommunications device, wherein the command and control data for said second standard implement digital communications (Paragraph 0013).

Regarding claim 19, the combination of Henriksson, Ella, King (US 6,415,158) , and Connor teach all the claimed element in claim 17. In addition, Connor teaches the radiocommunications device, wherein the command and control data for the second standard simulate analog communications (Paragraph 0013).

Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as

Art Unit: 2618

well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. SEE MPEP 2141.02 [R-5] VI. PRIOR ART MUST BE CONSIDERED IN ITS ENTIRETY, INCLUDING DISCLOSURES THAT TEACH AWAY FROM THE CLAIMS: A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984) *In re Fulton*, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004). >See also MPEP §2123.

Response to Arguments

Applicant's arguments filed 12/04/2009 have been fully considered but they are not persuasive. Regarding claim 1 and 15, Applicant argues that Ella does not disclose "at least partially using at least one of said frequency bands". The Examiner respectfully disagrees. Col 1, lines 41-55, Ella teaches in a mobile phone that is capable of operating in both PCS1900 and DCS 1800 bands, the PCS1900 Tx frequencies (1850-1910 MHz) and the DCS1800 Rx frequencies (1805-1880 MHz) overlap in the frequency range of 1850-1880 MHz. In the front-end design such as that shown in FIG. 1, the isolation between PCS 1900 Tx and DCS 1800 Rx components is only about 20 to 30 dB, so the above cited column clearly cover the limitation "at least partially using at least one of said frequency bands". Further, Applicant argues that King (US

Art Unit: 2618

6,415,158) does not disclose “wherein the second predetermined standard comprises a walkie-talkie standard and the second communications implementation means use the same frequency band for transmission and reception”. The Examiner respectfully disagrees. Col 4, lines 29-45, King teaches illustrated in FIG. 4, the mobile further includes a push-to-talk (PTT) or walkie-talkie button 28 which the user presses to transmit during the W-T mode. In contrast to frequency division duplexing which allows a user to speak and listen simultaneously, two-way radio communication typically transmits and receives at the same frequency, thus restricting the user to either speaking or listening at a give time (i.e., time-division duplexing). Therefore, in a manner discussed below, the dual mode mobile either transmits or receives during W-T mode depending on whether the user is pressing the PTT button 28.

For the reasons as set forth above, the examiner contends that the rejection to 1, 3-9,11-15, and 17-19 is proper

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 2618

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOMINIC E. REGO whose telephone number is (571)272-8132. The examiner can normally be reached on Monday-Friday, 9:00 am-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc M. Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Application/Control Number: 10/582,200

Page 16

Art Unit: 2618

/Duc Nguyen/

Supervisory Patent Examiner, Art Unit 2618